

REMARKS/ARGUMENTS

The Office Action mailed July 22, 2004 has been carefully considered. Reconsideration in view of the following remarks is respectfully requested.

Claim Status and Amendment to the Claims

Claims 46-90 are now pending.

Claim 65 has been amended to correct a typographical error.

Claims 1-45 have been canceled, without prejudice or disclaimer of the subject matter contained therein.

Judicially-created Double Patenting

Claims 46-90 stand rejected pursuant to the judicially-created doctrine of obviousness-type double patenting as being unpatentable over claims 1-56 of prior United States patent No. 6,654,796.¹ Submitted herewith is a terminal disclaimer in accordance with 37 CFR §§ 1.321 (b) and (c). Withdrawal of this rejection is respectfully requested.

The General Rejection by the Examiner

The Examiner states the following in ¶ 9 of the Office Action:

A combination of the teachings of AAPA, LANS, and CONFMAN should be obvious to one skilled in the art at the time of the invention to provide a cluster of switching devices and a method for redirecting network device configuration data using HTTP protocol. One skilled in the art should be motivated by using embedded HTML Web servers in network devices in order to allow the network device to be configured and managed remotely via a web browser utilizing a protocol such as HTTP as it is well suited for transaction-based application.²

The Applicants respectfully assert that this general rejection is improper for the following reasons.

1) If the invention is not considered patentable, or not considered patentable as claimed, *the claims*, or those considered unpatentable will be rejected.

(2) In rejecting claims for want of novelty or for obviousness, the examiner must cite the best reference at his or her command. When reference is complex or shows or describes inventions other than that claimed by the applicant, *the particular part relied on must be designated as nearly as practicable*. The pertinence of each reference, if not apparent, must be clearly explained and *each rejected claims specified*.³

¹ Office Action dated July 22, 2004, ¶ 3.

² Office Action ¶ 9.

³ 37 C.F.R. §1.104 (c). (emphasis added)

The Examiner does not specify any rejected claims in ¶ 9 of the Office Action. In addition, although the CONFMAN reference (“Configuration and Management”) is a 62-page document, no particular part relied on by the Examiner is designated for this general rejection.

Furthermore, regarding “Applicant Admitted Prior Art” (AAPA), [w]hen applicant states that something is prior art, it is taken as being available as prior art against the claims.⁴ The Examiner cites, in ¶ 4 of the Office Action, the following portions from the present specification as the alleged AAPA:

Page 12, lines 21-25:

"network devices such as LAN switches need to be configured and managed, because they typically include a number of programmable features that can be changed by a network administrator for optimal performance in a particular network. Without limitation, such features typically include whether each port on the network device is enabled or disabled, the data transmission speed setting on each port, and the duplex setting on each port."

Page 13, lines 1-17:

"Many commercially-available network devices contain embedded HTML Web servers, which allow the network device to be configured and managed remotely via a web browser."

"Traditionally, network device installation includes inserting the device into the network and assigning it an IP address, which is a 32-bit number assigned to hosts that wants to participate in a TCP/IP Internet.

"Once a network device has been assigned an IP address, a network administrator can enter the device's IP address or URL into a browser such as .. to access the network device and configure it from anywhere in the Internet".

Page 24, lines 4-8:

" HTTP communication usually takes place over TCP/IP connections.... This does not preclude HTTP from being implemented on top of any other protocol on the Internet, or on other networks. HTTP only presumes a reliable transport. Thus any protocol that provides such guarantees can also be used.

Page 27, lines 10-15:

⁴ *In re Nomiya*, 509 F.2d 566, 184, USPQ 607, 610 (CCPA 1975).

"the commander switch uses the Cisco Discovery Protocol CDP to automatically identify candidate network device. However, other similar products known to those of ordinary skill in the art are available from other vendors to accomplish the same task. Alternatively, discovery of candidate network devices may be performed manually..."

However, the description on pages 24 and 27 is neither presented as Background of the Invention, nor labeled as Prior Art. Instead, the description is part of Detailed Description of the Preferred Embodiments of the present invention, and thus the Applicants do not state that the description on pages 24 and 27 is Prior Art. Accordingly, the Applicants respectfully request that the rejection based on the Applicants' own description on page 24 and 27 as alleged prior art be withdrawn.

The First 35 U.S.C. § 103 Rejection

Claims 46-61 and 63-90 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over LANSW⁵ in view of the Applicant's allegedly admitted prior art (AAPA), and further in view of CONFMAN⁶, among which claims 46, 59, and 75 are independent claims.⁷ This rejection is respectfully traversed.

According to the Manual of Patent Examining Procedure (M.P.E.P.),

To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure.⁸

⁵ "LAN Switching," Cisco Systems, Inc., printed in 1999.

⁶ "Configuration and Management," Cisco Systems, Inc., printed in 1999.

⁷ Office Action, ¶ 3.

⁸ M.P.E.P. § 2143.

Especially, the Examiner alleged, in the Office Action, as follows:

As to claims 46, 53-56, 59-61, 69-72, 75, and 82-85, LANSW, AAPA, and CONFMAN disclose the invention substantially as claimed including a cluster of network devices, comprising a cluster management station capable of transmitting HTTP requests (normally include identifier and data) and a commander network device capable of receiving said transmitted HTTP requests and redirecting them to one or more expansion network devices, or locally processes the request, and responding back. In addition, LANS discloses the commander network device and the expansion network devices as LAN switches.⁹

This rejection is respectfully traversed.

According to the M.P.E.P.,

To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure.¹⁰

Furthermore, the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.¹¹

Claim 46 recites:

A first network device for managing a cluster of network devices, said first network device comprising:
an input interface adapted to receive a network device management request from a management station via a first HTTP connection, the request including a Universal

⁹ Office Action ¶ 12.

¹⁰ M.P.E.P. §2143.

¹¹ *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

Resource Identifier (URI) and management data for a network device; and a request redirector adapted to determine a second network device in the cluster indicated by the URI and to redirect the request via a forwarding HTTP connection to the second network device.

LANSW teaches Catalyst 5000 LAN switch (Switch E) in Figure 10-2 thereof, which connected to other LAN switches A-D. In LANSW, when a first client on a first VLAN segment connected to a first switch (e.g., Switch B) wants to communicate with a second client on a second VLAN segment connected to a different switch (e.g., Switch A), the Ethernet frame is encapsulated with a header containing a VLAN identifier and is sent to Switch E. Switch E examines the header and determines that the frame is intended to the first VLAN segment and sends the frame out on a corresponding port of Switch A (LANSW, page 10-5, lines 1-6). Thus, LANSW only teaches usual data packet forwarding from one LAN switch (Switch B) to another (Switch A) via yet another switch (Switch E) coupled to both of the switches. The data flow is only one client to another client, and the switches merely forward (i.e., they only look at the header to determine the destination), and the switches are in no way managed by the data packet that they are forwarding in LANSW. Thus, LANSW does not teach or suggest receiving and redirecting any network device management request that contains management data for the indicated network device, as recited in claim 46.

Furthermore, LANSW only teaches 10 Mbps Ethernet and Fast Ethernet connections between the LAN switches, and LANSW neither suggests using HTTP connections, nor provides motivation to use HTTP in its LAN scheme.

Thus, LANSW fails to teach or suggest redirecting the request via a forwarding HTTP connection, the request including a Universal Resource Identifier (URI) and cluster management data for a network device, as recited in claim 46.

CONFMAN teaches a management console and how to configure and manage *individual* switches. However, CONFMAN explains, “You can use the management console even when the network is down because the console *communicates directly* with the switch [to be managed of configured], bypassing the network” (*emphasis added*). Thus, CONFMAN does not teach or suggest managing a cluster of network devices via another network device, redirecting a management request from a management station to another network device, or managing a cluster of network devices using one designated network device, since CONFMAN teaches away from indirect management of the switches. Accordingly, CONFMAN fails to teach redirecting a management request, as claimed in claim 46.

The alleged AAPA merely states individual network devices can contain embedded HTML Web servers, through which they may be configured or managed remotely via a web browser. Thus, although the alleged AAPA may teach remotely managing individual network devices via a web browser, it does not teach or suggest redirecting a management request from one network device to another, as recited in claim 46.

Thus, although CONFMAN’s management in which each network device is individually and directly managed by a management console using respective IP addresses (see page “3-18”

thereof) might be modified by the alleged AAPA, the result is the individual network devices that are remotely managed using a web browser, since both fails to teach or suggest any redirection of a management request, as discussed above. In addition, neither LANSW teaches or suggests such redirection of a management request.

Accordingly, any combination of LANSW, the alleged AAPA, and CONFMAN does not teach or suggest redirecting the request via a forwarding HTTP connection, the request including a Universal Resource Identifier (URI) indicating one of the network devices in the cluster and management data for the indicated network device, as claimed in claim 46.

Independent claims 59 and 75 include substantially the same distinctive features as claim 46 discussed above. Thus, the argument set forth above is equally applicable to these independent claims.

For the above reasons, the 35 U.S.C. § 103 rejection of claims 46, 59, and 75 based on LANSW, the alleged AAPA, and CONFMAN is unsupported by the art. Accordingly, it is respectfully requested that the rejection of claims based on LANSW, the alleged AAPA, and CONFMAN be withdrawn.

Claims 47-58, 60-61, 63-74, and 76-90

Claims 47-58 depend from claim 46. Claims 60-61 and 63-74 depend from claim 59. Claims 76-90 depend from claim 75. The base claims being allowable, the dependent claims must be allowable for at least the same reasons.

Claims 87-89

The Examiner states:

As to claims 87-89, Official notice is taken that the both the concept and advantages of providing authentication to redirected requests is well known and expected in the art. It would have been obvious to one skilled in the art at the time of the invention to provide authentication to the redirected request through comparing an IP address of a sender of the request with the receiving means and for checking if such address is associated with a MAC address. Authentication of directed requests would result in enhancing the controlled distribution of such requests.¹²

The Applicants respectfully disagree, since the Examiner may only take official notice of facts outside of the record which are capable of instant and unquestionable demonstration as being "well-known" in the art.¹³ The Applicants respectfully demand the evidence of the Official Notice.

The Second 35 U.S.C. § 103 Rejection

Claim 62 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over LANSW in view of the Applicant's allegedly admitted prior art, and further in view of CONFMAN, and further in view of Chung et al.¹⁴, among which claims 46, 59, and 75 are independent claims.¹⁵ This rejection is respectfully traversed.

¹² Office Action ¶ 17.

¹³ *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970).

¹⁴ U.S. Patent No. 6,470,389 to Chung et al.

¹⁵ Office Action , ¶ 3.

Claim 62 depends from claim 59 and thus includes the limitations of claim 59. The arguments made above with respect to claim 59 apply here as well. The 35 U.S.C. § 103 rejection of claim 59 based on LANSW in view of the Applicant's allegedly admitted prior art, and further in view of CONFMAN is unsupported by the art, as each and every element as set forth in claim 59 is not disclosed or suggested by the combined references. Therefore, the 35 U.S.C. § 103 rejection of dependent claim 62 based on LANSW in view of the Applicant's allegedly admitted prior art, and further in view of CONFMAN, and further in view of Chung et al. is also unsupported by the art. Thus, no prima facie case of obviousness has been established and the 35 U.S.C. § 103 rejection should be withdrawn.

The Third 35 U.S.C. § 103 Rejection

Claims 46-75 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Venkatraman et al.¹⁶ in view of Wendt et al.,¹⁷ and further in view of Applicant's allegedly admitted prior art, among which claims 46, 59, and 75 are independent claims.¹⁸ This rejection is respectfully traversed.

Claim 46 recites:

A first network device for managing a cluster of network devices, said first network device comprising:
an input interface adapted to receive a network device management request from a management station via a first HTTP connection, the request including a Universal Resource Identifier (URI) and management data for a network device; and
a request redirector adapted to determine a second network device in the cluster indicated by the URI and to redirect the request via a forwarding HTTP connection to the

¹⁶ U.S. Patent No. 5,956,487 to Venkatraman et al.

¹⁷ U.S. Patent No. 6,067,558 to Wendt et al.

¹⁸ Office Action, ¶ 20.

second network device.

The Examiner states:

As to claim 46, Venkatraman discloses the embedded web access mechanism that enables a web browser to manage a device using a Universal Resource identifier (URI) for the device URL (abstract), e.g., a first network device (40, Fig. 2) for managing a cluster of network devices (10, 50, 51, 52, Fig. 2), through a request (created at device 40 or received by device 40 when device 40 also comprises an embedded web access mechanism), with an embedded web access mechanism, device 40 would obviously comprise an input interface adapted to receive requests via an HTTP connection.¹⁹

The Examiner further states:

Venkatraman does not disclose redirecting the request to a second network device in the cluster indicated by the URI via a forwarding HTTP connection to the second network device. Wendt, on the other hand discloses redirecting requests to a second device (server) indicated by the URI via a forwarding HTTP connection (abstract, and col. 1, lines 36-65). It would have been obvious to one skilled in the art at the time of the invention to combine the teachings of Venkatraman and Wendt because Wendt redirector would facilitate distribution of controlled function throughout different devices resulting in solving a centralized function in one device (col. 1, lines 36-40).²⁰

The Applicants respectfully disagree. Contrary to the Examiner's statement, the combination of Venkatraman et al. and Wendt et al. does not disclose a request redirector adapted to determine a second network device in the cluster indicated by the URI and to redirect the request via a forwarding HTTP connection to the second network device as required by claim 46. Wendt et al. recites:

HTTP Redirection

The HTTP protocol supports the redirection of browser generated HTTP requests from one HTTP daemon to another. This is accomplished as follows:

The browser sends an HTTP request to an HTTP daemon specifying the request URL. The HTTP daemon sends an HTTP response *back to the browser* with a status code "moved permanently" or "moved temporarily" and with the new URL given by the location field in the response. The HTTP daemon has considerable latitude in what the

¹⁹ Office Action, ¶ 21.

²⁰ Office Action, ¶ 22.

new URL is and can dynamically generate the new URL if it desires. The new URL can indicate an HTTP daemon on another machine (e.g. a content server).

The browser receives the HTTP response and then sends an HTTP request to the new URL where the actual content is stored.

The HTTP daemon processes the HTTP request and sends back a response to the browser with the actual content.²¹

Thus, Wendt et al. discloses using HTTP redirection whereby a browser sends an HTTP request to an HTTP daemon specifying the request URL. Rather than redirecting to the URL where the requested content is stored, the HTTP daemon then sends an HTTP response *back to the browser* and includes in the response a new URL indicating where the requested content is stored. Only then does the browser send the HTTP request to the new URL where the requested content is stored.

Independent claims 59 and 75 include substantially the same distinctive features as claim 46 discussed above. Thus, the argument set forth above is equally applicable to these independent claims.

For the above reasons, the 35 U.S.C. § 103 rejection of claims 46, 59, and 75 based on Venkatraman et al. in view of Wendt et al., and further in view of Applicant's allegedly admitted prior art is unsupported by the art. Accordingly, it is respectfully requested that the rejection of claims based on Venkatraman et al. in view of Wendt et al., and further in view of Applicant's allegedly admitted prior art be withdrawn.

Claims 47-58 and 60-74

²¹ Wendt et al. col. 12 line 51 to col. 13 line 2. (emphasis added)

Claims 47-58 depend from claim 46. Claims 60-74 depend from claim 59. The base claims being allowable, the dependent claims must be allowable for at least the same reasons.

Claims 87-89

The Examiner states:

As to claims 87-89, Official notice is taken that the both the concept and advantages of providing authentication to redirected requests is well known and expected in the art. It would have been obvious to one skilled in the art at the time of the invention to provide authentication to the redirected request through comparing an IP address of a sender of the request with the receiving means and for checking if such address is associated with a MAC address. Authentication of directed requests would result in enhancing the controlled distribution of such requests.²²

The Applicants respectfully disagree, since the Examiner may only take official notice of facts outside of the record which are capable of instant and unquestionable demonstration as being "well-known" in the art.²³ The Applicants respectfully demand the evidence of the Official Notice.

For this additional reason, the 35 U.S.C. § 103 rejection of claims 87-89 based on Venkatraman et al. in view of Wendt et al., and further in view of Applicant's allegedly admitted prior art is unsupported by the art and should be withdrawn.

In view of the foregoing, it is respectfully asserted that the claims are now in condition for allowance.

²² Office Action ¶ 26.

²³ *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970).

Conclusion

It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Amendment is earnestly solicited.

If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.


Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Please charge any additional required fee or credit any overpayment not otherwise paid or credited to our deposit account No. 50-1698.

Respectfully submitted,

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